



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,273	09/28/2005	Masaki Urano	789_148	4653
25191	7590	03/02/2007	EXAMINER	
BURR & BROWN PO BOX 7068 SYRACUSE, NY 13261-7068			LEE, BENNY T	
			ART UNIT	PAPER NUMBER
			2817	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/02/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/551,273	URANO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Benny Lee	2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 28 September 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 September 2005 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

The disclosure is objected to because of the following informalities: Page 3, line 6, note that “DISCLOSURE” should properly be --SUMMARY-- as to be consistent with PTO guidelines. Page 7, lines 13, 14, & page 19, line 11, note that “S1 through S7” should be rewritten as --S1, S2, S3, S4, S5, S6, S7-- at each instance for consistency with the corresponding drawing figure. Page 13, line 6, note that “52a through 52d” should be rewritten as --52a, 52b, 52c, 52d-- for consistency with the corresponding drawing figure. Page 24, line 25, note that “218a through 218d” should be rewritten as --218a, 218b, 218c, 218d-- for consistency with the corresponding drawing figure. Page 25, line 11, note that “228a through 228e” should be rewritten as --228a, 228b, 228c, 228d, 228e-- for consistency with the corresponding drawing figure; line 17, note that “238a through 238d” should be rewritten as --238a, 238b, 238c, 238d-- for consistency with the corresponding drawing figure. Page 27, line 9, note that --(IN/out)-- should be inserted after “terminals” (first occurrence) and --(GND)-- should be inserted after “terminals” (second occurrence) for consistency with the corresponding drawing figure; lines 9, 10, note that “250a through 250d” & “252a through 252d” should be respectively rewritten as --250a, 250b, 250c, 250d-- & --252a, 252b, 252c, 252d-- for consistency with the corresponding drawing figure. Note that the following reference labels need description relative to the corresponding drawing figure: Figs. 3, 4 (12a, 104, 106; Fig. 4 (60, 62, 64, 66); Fig. 5, all reference labels except (10c, 12b, 14, 92, 94, S6); Fig. 6 (180, 190); Fig. 7 (S1, S3, S4, S5, S10, 212). Appropriate correction is required.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electrodes “extending outwardly”

(e.g. claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, note that it is unclear whether the "at least one terminal extending outwardly" is a proper characterization of applicant's invention. From applicant's disclosure, it can not be seen that any of the disclosed embodiments provides terminals which are "extending outwardly". Clarification is needed.

In claims 1, 3, 4, note that it is unclear which one of the “at least one terminal” is intended by the recitation of “said terminal”. Clarification is needed.

In claim 3, note that the conditional recitation “if” renders the claim vague and indefinite since it is unclear how the claim is impacted if the condition is not met. Clarification is needed. Moreover, note that “said electrode” is vague in meaning as to which ones of the earlier recited “plurality of electrodes” or “an electrode” it is intended to be associated.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 5 rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Shapiro (cited by applicant) or Chaturvedi.

Shapiro or Chaturvedi each disclose a passive component including a plurality of electrodes (e.g. 606A, 606C, C1, C2 in Shapiro; 216 in Chaturvedi) disposed in stacked dielectric layers (e.g. 301-311 in Shapiro; 204a-204g in Chaturvedi) and having a terminal (e.g. input/output electrodes (202, 202') in Shapiro; input/output electrodes (208, 210) in Chaturvedi) provided only on the lower surface of the dielectric substrate. Additionally, note that the lower surface further includes a ground plane electrode (e.g. 104 in fig. 3 of Shapiro; 214 in fig. 2 of Chaturvedi) located between and electrically isolating the input/output electrodes. Also, note that

a further shield electrode (e.g. top ground plane 102 in Shapiro; top ground plane 206 in Chaturvedi) is provided as a part of the stacked dielectric layers.

Claims 1, 2, 4, 5 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kanba et al.

Kanba et al (Fig. 1C) discloses a passive component including a plurality of electrodes (e.g. 3, 4) disposed in stacked dielectric layers (e.g. separate stacked layers of dielectric substrate 2 as shown in Fig. 1C) and having a terminal [e.g. input/output electrodes (10, 11)] provided only on the lower surface of the dielectric substrate. Additionally, note that the lower surface further includes a ground plane electrode (e.g. 7) located between the input/output electrodes (3, 4). Also, note that a further shield electrode (e.g. electrode 6 in Fig. 1C) is provided as a part of the stacked dielectric layers.

Claims 1, 2, 4, 5, 6 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Fischer.

Fischer discloses a passive component including a plurality of electrodes (e.g. 22, 22a in Fig. 1) disposed in stacked dielectric layers (e.g. dielectric base plate (24) & LTCC ceramic layer (28) as shown in Fig. 2) and having a terminal [e.g. input/output electrodes (32)] provided only on the lower surface of the dielectric substrate. Additionally, note that the lower surface further includes a ground plane electrode (e.g. 35) located between the input/output electrodes (32). Also, note that a further shield electrode (e.g. ground plane electrode 28 in Fig. 2) is provided as a part of the stacked dielectric layers. Furthermore, note that dielectric base plate (24), which is located between the shield electrode (28) and the lower surface, is comprised of alumina, which

Art Unit: 2817

has a dielectric constant whose value is 9.9 (see the end of paragraph [0003]), and as such is less than a dielectric constant of 20.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

*Benny Lee*

B. Lee

U.S. PAT. & TM. OFF. -  
REG. U.S. PAT. & TM. OFF.  
ART. 102, 103, 104, 105, 106  
APR 12 1981